

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 03/02701

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01J23/22 B01J27/20 B01J23/75 B01J23/755

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 608 359 A (FIATO ROCCO A ET AL) 26 August 1986 (1986-08-26) column 3, line 9 - column 6, line 47; claims; examples; tables ---	1-17
X	US 4 559 365 A (FIATO ROCCO A ET AL) 17 December 1985 (1985-12-17) the whole document ---	1-17
A	US 2 230 267 A (SAMUEL RUBEN) 4 February 1941 (1941-02-04) the whole document ---	
X	US 4 113 658 A (GEUS JOHN W) 12 September 1978 (1978-09-12) column 10, line 42 - line 65 column 14, line 39 - line 44; claims; figures; examples; tables ---	1-17
-/--		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *S* document member of the same patent family

Date of the actual completion of the international search

4 December 2003

Date of mailing of the international search report

18 DEC. 2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 853 791 A (FEINS I) 10 December 1974 (1974-12-10) column 3, line 35 - line 49 column 7, line 4 - line 30; claims; examples; tables ---	1-17
X	US 4 522 940 A (SAMBROOK RODNEY M ET AL) 11 June 1985 (1985-06-11) column 2, line 50 -column 3, line 25; claims; examples; tables ---	1-17
X	US 4 469 815 A (SAMBROOK RODNEY M ET AL) 4 September 1984 (1984-09-04) column 2, line 15 - line 40 column 3, line 37 -column 56; claims; examples; tables -----	1-17

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national application No.
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1-17 (partially)
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: claims 1 - 17 (partially : in as far as they relate to the incorporation of V, Cr, Mn, Fe or Cu)

process for preparing a supported catalyst or catalyst precursor containing carbon, further comprising a V, Cr, Mn, Fe or Cu-containing compound; and a process for carrying out a F-T synthesis, hydrotreating, hydrocarbon partial oxidation, steam reforming or carbon dioxide reforming reaction with a catalyst prepared by said preparation process.

2. Claims: claims 1 - 17 (partially : in as far as they relate to the incorporation of Mo or W)

process for preparing a supported catalyst or catalyst precursor containing carbon, further comprising a Mo- or W-containing compound; and a process for carrying out a F-T synthesis, hydrotreating, hydrocarbon partial oxidation, steam reforming or carbon dioxide reforming reaction with a catalyst prepared by said preparation process.

3. Claims: claims 1 - 17 (partially : in as far as they relate to the incorporation of Co and/or Ni),
19 (partially : without a promotor)

process for preparing a supported catalyst or catalyst precursor containing carbon, further comprising a Co and/or Ni-containing compound; and a process for carrying out a F-T synthesis, hydrotreating, hydrocarbon partial oxidation, steam reforming or carbon dioxide reforming reaction with a catalyst prepared by said preparation process.

4. Claims: claims 1 - 17 (partially : in as far as they relate to the incorporation of Co and/or Ni),
18 and 19

a supported catalyst or catalyst precursor containing carbon, further comprising a Co and/or Ni-containing compound and additionally comprising a promotor compound; a process for preparing a said catalyst or catalyst precursor ; and a process for carrying out a F-T synthesis, hydrotreating, hydrocarbon partial oxidation, steam reforming or carbon dioxide reforming reaction with a catalyst prepared by said preparation process.

International Application No. PCT/GB 03 02701

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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Information on patent family members

International Application No

PCT/GB 03/02701

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4608359	A	26-08-1986	US 4559365 A CA 1250566 A1 DE 3561687 D1 DE 170408 T1 EP 0170408 A1 JP 1060295 B JP 1575562 C JP 61050641 A	17-12-1985 28-02-1989 07-04-1988 12-06-1986 05-02-1986 21-12-1989 24-08-1990 12-03-1986
US 4559365	A	17-12-1985	CA 1250566 A1 DE 3561687 D1 DE 170408 T1 EP 0170408 A1 JP 1060295 B JP 1575562 C JP 61050641 A US 4608359 A	28-02-1989 07-04-1988 12-06-1986 05-02-1986 21-12-1989 24-08-1990 12-03-1986 26-08-1986
US 2230267	A	04-02-1941	NONE	
US 4113658	A	12-09-1978	NL 6705259 A ,B NL 6712004 A ,B AT 289040 B AT 300736 B BE 713656 A CH 517522 A DE 1767202 A1 DK 124925 B ES 352710 A1 FR 1569895 A GB 1220105 A JP 50002398 B SE 345393 B	15-10-1968 04-03-1969 25-03-1971 10-08-1972 14-10-1968 15-01-1972 18-03-1971 11-12-1972 16-04-1970 06-06-1969 20-01-1971 25-01-1975 29-05-1972
US 3853791	A	10-12-1974	CA 1021313 A1 US 3947379 A	22-11-1977 30-03-1976
US 4522940	A	11-06-1985	CA 1196907 A1 AT 21836 T BR 8104565 A EP 0044117 A2 GB 2080136 A ,B JP 1606211 C JP 2030740 B JP 57091740 A DE 3175264 D1	19-11-1985 15-09-1986 06-04-1982 20-01-1982 03-02-1982 31-05-1991 09-07-1990 08-06-1982 09-10-1986
US 4469815	A	04-09-1984	AT 48952 T BR 8104564 A DE 3177137 D1 EP 0044118 A2 GB 2080135 A ,B JP 1812255 C JP 5009136 B JP 57045349 A US 4530918 A	15-01-1990 06-04-1982 01-02-1990 20-01-1982 03-02-1982 27-12-1993 04-02-1993 15-03-1982 23-07-1985